

Amendments To The Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A high strength non-oriented electrical steel sheet characterized by consisting essentially of, by mass %, C: 0.06% or less, Si: ~~2.0~~ 3.6 to 6.5%, Mn: 0.05 to 3.0%, P: 0.30% or less, S or Se: 0.040% or less, Al: 0.005% or less, Cu: 0.6 to 8.0%, Cr: 4.5% or less, N: 0.0031 to 0.0301%, and a balance of Fe and unavoidable impurities and containing a metal phase comprised of Cu having a diameter of 0.1 μ m or less in the steel sheet by means of holding the steel sheet in a heat treatment at a temperature range of 300°C to 650°C for 5 seconds or more.

2. (Currently Amended) A high strength non-oriented electrical steel sheet characterized by consisting essentially of, by mass%, C: 0.06% or less, Si: ~~2.0~~ 3.6 to 6.5%, Mn: 0.05 to 3.0%, P: 0.30% or less, S or Se: 0.040% or less, Al: 0.005% or less, Cu: 0.6 to 8.0%, Cr: 4.5% or less, N: 0.0031 to 0.0301%, one or more of Nb: 8% or less, Ti: 1.0% or less, B: 0.010% or less, and Ni: 5% or less, and a balance of Fe and unavoidable impurities and containing a metal phase comprised of Cu having a diameter of 0.1 μ m or less in the steel sheet by means of holding the steel sheet in a heat treatment at a temperature range of 300°C to 650°C for 5 seconds or more.

3. (Currently Amended) A high strength non-oriented electrical steel characterized by consisting essentially of, by mass%, C: 0.06% or less, Si: ~~2.0~~ 3.6 to 6.5%, Mn: 0.05 to 3.0%, P: 0.30% or less, S or Se: 0.040% or less, Al: 0.005% or less, Cu: 0.6 to 8.0%, Cr: 4.5% or less, N: 0.0031 to 0.0301%, one or more of Bi, Mo, W, Sn, Sb, Mg, Ca, Ce, La, and Co in a total of 0.5% or less, and a balance of Fe and unavoidable impurities and containing a metal phase comprised of Cu having a diameter of 0.1 μ m or less in the steel sheet by means of holding the steel sheet in a heat treatment at a temperature range of 300°C to 650°C for 5 seconds or more.

4. (Currently Amended) A high strength non-oriented electrical steel sheet as set forth in any one of claims ~~claim~~ 1 to 3, wherein the number density of the metal phase comprised of Cu present in said steel is $20/\mu\text{m}^3$ or more.

5. (Currently Amended) A high strength non-oriented electrical steel sheet as set forth in any one of claims ~~claim~~ 1 to 3, wherein said steel sheet has an average crystal grain size of 30 to 300 μm .

6. (Currently Amended) A high strength non-oriented electrical steel sheet as set forth in any one of claims ~~claim~~ 1 to 3, wherein the steel sheet has a processed structure remaining in it.

7. (Currently Amended) A high strength non-oriented electrical steel sheet as set forth in any one of claims ~~claim~~ 1 to 3, characterized in that the steel sheet contains a Nb carbide or nitride.

8-10. (Canceled)

11. (Currently Amended) A processed part of a high strength non-oriented electrical steel sheet as set forth in any one of claims ~~claim~~ 1 to 3, wherein the part is heat treated after processing for a shaping step to form the processed part so that the metal phase comprised mainly of Cu present in the processed part has a number density of $20/\mu\text{m}^3$ or more.

12. (Previously Presented) A processed part of a high strength non-oriented electrical steel sheet as set forth in claim 11, wherein the metal phase has an average size of 0.1 μm or less.

13. (Previously Presented) A processed part of a high strength non-oriented electrical steel sheet as set forth in claim 11, wherein the part has an average crystal grain size of 3 to 300 μm .

14. (Previously Presented) A processed part of a high strength non-oriented electrical steel sheet as set forth in claim 11, wherein the number density of the metal phase is increased by 10-fold or more after the heat treatment.

15. (Previously Presented) A processed part of a high strength non-oriented electrical steel sheet as set forth in claim 11, wherein tensile strength of the part is increased by 30 MPa or more after the heat treatment.

16. (Previously Presented) A processed part of a high strength non-oriented electrical steel sheet as set forth in claim 11, wherein hardness of the part is increased by 1.1-fold or more after the heat treatment.

17-21. (Canceled)

22. (Currently Amended) A high strength non-oriented electrical steel sheet as set forth in any one of claims claim 1 to 3, wherein said steel sheet has Mn: 0.5 to 1.2%

23. (Currently Amended) A high strength non-oriented electrical steel sheet as set forth in any one of claims claim 1 to 3, wherein said steel sheet has an average crystal grain size of 30 to 300 μm by means of holding the steel sheet in a heat treatment at 800°C to 1100°C ~~or so~~ for 20 seconds to 5 minutes ~~or so~~.